



The MP3100/800/45MK-A is a broadband and high power amplifier for 2700-3500 MHz frequency band. It is suitable for Communication applications. The amplifier employs advance GaN power devices that provide ample output power, a wide dynamic range, broadband, and high efficiency.

## Model: MP3100/800/45MK-A

1. Electrical Characteristics		
Item	Value	Note
Frequency Range	2700 ~ 3500 MHz	
Gain	47 dB ± 2 dB	@ Rated Power
Gain Flatness	± 1.5 dB (Typ.)	Pout @ +45 dBm Over Freq. Range
Output Power Psat	+45.0 dBm (Min.)	
Input VSWR	1.8:1 (Max.)	
Enable/Disable	TTL "Low or Open": Enable TTL "High": Disable	Pin 5 on DB-9
Switch On/Off @ 10-90% Time	< 2 μs (Typ.)	
FWD. Power Monitor	4.0 ± 0.2 V @ +45 dBm	RMS Detection, Pin 8
REV. Power Monitor	4.0 ± 0.2 V @ +45 dBm	RMS Detection, Pin 9
Thermal Shutdown	+80°C ±5°C	Auto Recover @ +70°C ±5°C
Harmonics	-20 dBc (Max.)	@ Rated Power
Spurious	-70 dBc (Max.)	@ Rated Power
Current Sensor	100 mV/Amp	Pin 2 on DB-9
Temp. Sensor	10 mV/°C	Pin 3 on DB-9
DC Input	+28 VDC	
DC Current	3.5 A (Max.)	Pout @ +45 dBm
Standby Current	0.1 A (Max.)	Shutdown Status
Efficiency	30 % (Min.)	Pout @ +45 dBm
Input / Output Impedance	50 Ω	
Max. Input Power (Without Damage)	+5 dBm	

2. Mechanical Characteristics		
RF IN/OUT Connector	SMA Female	
DC Input	Pin 6,7 on DB-9	
Dimensions	7.2" x 3.48" x 1.06"	
Weight	1.2 lb	

3. Environment Characteristics		
Operating Temperature	-20°C ~ +75°C	Base Plate
Cooling	External Heatsink	
Humidity (Non-condensing)	95% (Max.)	

Revision History			
REV	Reason to Change	Date	Initialed by
	Production released	12/14/14	Y.Z.

4. DB9-Male Pin Description		
1	NC	
2	Current Sensor	100 mV/Amp
3	Temperature Monitor	V <sub>t</sub> + 500 mV, 10 mV / °C
4	NC	
5	Enable/Disable	Enable: TTL Low or Open Disable: TTL High
6, 7	+28VDC	
8	Forward Power Monitor	
9	Reverse Power Monitor	

## 5. Outline Drawing

